AMENDMENTS IN THE CLAIMS:

Please amend the claims as follows. Claims 1-4 are currently pending.

Claim 1 (Currently Amended): An information recording medium comprising:

a substrate on which the grooves are formed;

a recording layer to which an optical beam is applied; and

a cover layer for protecting said recording layer,

wherein the thickness of said cover layer is thinner than the thickness of said substrate;

wherein said cover layer, said recording layer and said substrate are disposed in this order from the side where said optical beam is applied; and

wherein the thickness of said recording layer formed in an area opposed to said groove and forming a recording track on which the information is recorded is greater than the thickness of said recording layer formed in an area opposed to an area between said two adjacent grooves on said substrate.

Claim 2 (Original): The information recording medium according to claim 1, wherein a reflecting layer for reflecting said optical beam is disposed between said recording layer and said substrate, and said recording layer is formed on said reflecting layer provided on said substrate by a spin coat method.

Claim 3 (Original): The information recording medium according to claim 1 or 2, wherein the depth of said groove and the thickness of said recording layer forming said recording track are set up such that

$-360° < \theta 0$, $\theta 1 < -180°$, and $\theta 0 < \theta 1$

where the phase in the reflected light of said optical beam from said recording track on which said information is not recorded is θ0, the phase in the reflected light of said optical beam from said recording track on which said information is recorded is θ1, and the phase in the reflected light of said optical beam from an area on said substrate between said two adjacent grooves for said information recording medium on which said information is not recorded is 0°.

Claim 4 (Currently Amended): An information recording apparatus for recording information on the information recording medium, ~~according to any one of claims 1 to 3,~~ which comprising: a substrate on which the grooves are formed; a recording layer to which an optical beam is applied; and a cover layer for protecting said recording layer, wherein the thickness of said cover layer is thinner than the thickness of said substrate; wherein said cover layer, said recording layer and said substrate are disposed in this order from the side where said optical beam is applied; and wherein the thickness of said recording layer formed in an area opposed to said groove and forming a recording track on which the information is recorded is greater than the thickness of said recording layer formed in an area opposed to an area between said two adjacent grooves on said substrate, comprising:

an encoder device for encoding said information to generate the encoded information;

a modulation device for modulating said optical beam based on said generated encoded information; and

a radiation device for radiating said modulated optical beam to said recording track from the side of said cover layer to record said information.